Dated: December 5, 2000.

A. Lee Fritschler,

Assistant Secretary for Postsecondary Education.

[FR Doc. 00–31517 Filed 12–11–00; 8:45 am]

BILLING CODE 4000–01–P

DEPARTMENT OF ENERGY

Notice of Intent To Establish the Worker Advocacy Advisory Committee

Pursuant to Section 9(a)(2) of the Federal Advisory Committee Act (Pub. No. 92–463), and in accordance with title 41 of the Code of Federal Regulations, section 101–6.1015(a), this is notice of intent to establish the Worker Advocacy Advisory Committee. This intent to establish follows consultation with the Committee Management Secretariat of the General Services Administration, pursuant to 41 CFR Subpart 101–6.10.

The purpose of the Committee is to provide the Secretary of Energy and the Assistant Secretary for Environment, Safety and Health with advice, information, and recommendations on programs to assist workers who have been diagnosed with work-related illnesses under the Department of Energy's former worker medical surveillance program and ongoing beryllium medical surveillance programs in filing state workers' compensation claims. The Committee will: (1) Provide advice to the Department of Energy on workers' compensation policy issues of concern to the Department; (2) periodically review worker advocacy program initiatives and recommendations; and, (3) provide advice on plans, priorities, and strategies to improve advocacy practices and procedures of the worker advocacy program.

Committee members will be chosen to ensure an appropriately balanced membership to bring into account a diversity of viewpoints, including state and federal workers' compensation specialists, workers, union representatives, occupational physicians, representatives of medical and public health organizations, academic researchers and the public at large who may significantly contribute to the deliberations of the Committee. All meetings of this Committee will be published ahead of time in the **Federal Register**.

Additionally, the establishment of the Worker Advocacy Advisory Committee is essential to the conduct of Department of Energy business, and is in the public interest.

Further information regarding this committee may be obtained from Dr. David Michaels, Assistant Secretary for Environment, Safety and Health, U.S. Department of Energy, Washington, DC 20585, phone (202) 586–6151.

Issued in Washington, DC on December 7, 2000.

James N. Solit,

Advisory Committee Management Officer.

[FR Doc. 00–31598 Filed 12–11–00; 8:45 am]

BILLING CODE 6450–01–M

DEPARTMENT OF ENERGY

National Energy Technology Laboratory; Notice of Availability of a Financial Assistance Solicitation

AGENCY: National Energy Technology Laboratory (NETL), Morgantown, Department of Energy (DOE).

ACTION: Notice of availability of a Financial Assistance Solicitation.

SUMMARY: Notice is hereby given of the intent to issue Financial Assistance Solicitation No. DE–PS26–01NT40951 entitled, ''Support of Advanced Coal Research at U.S. Colleges and Universities.'' Proposals will be subjected to a comparative merit review by a technical panel of DOE subject-matter experts and external peer reviewers. Awards will be made to a limited number of proposers based on: the scientific merit of the proposals, application of relevant program policy factors, and the availability of funds.

DATES: The solicitation will be available on the DOE/ NETL's Homepage at http:/www.netl.doe.gov/business on or about December 15, 2000. Applications must be received at NETL by February 8, 2001.

FOR FURTHER INFORMATION CONTACT: Michael P. Nolan, MS I07, U.S. Department of Energy, National Energy Technology Laboratory, P.O. Box 880, Morgantown, WV 26507–0880, E-Mail: mnolan@netl.doe.gov, Telephone: (304) 285–4149, Facsimile: (304) 285–4683.

SUPPLEMENTARY INFORMATION: Through Program Solicitation DE–PS26–01NT40951, the DOE is interested in applications from U.S. colleges and universities, as well as university-affiliated research centers submitting applications through their respective universities. Applications will be selected to complement and enhance research being conducted in related Fossil Energy Programs. Applications may be submitted individually (*i.e.,* by only one college/university or one college subcontracting with one other college/university) or jointly (*i.e.,* by ''teams'' made up of (1) three or more colleges/universities, or (2) two or more colleges/universities and at least one industrial partner. Collaboration, in the form of joint proposals, is encouraged but not required.

Eligibility. Applications submitted in response to this solicitation must address coal research in one of the key focus areas of the Core Program or as outlined in the Innovative Concepts Phase-I & Phase-II Programs.

Background. The current landscape of the U.S. energy industry, not unlike that in other parts of the world, is undergoing a transformation driven by changes such as deregulation of power generation, more stringent environmental standards and regulations, climate change concerns, and other market forces. Energy from coal-fired powerplants will continue to play a dominant role as an energy source, and therefore, it is prudent to use this resource wisely and ensure that it remains part of the sustainable energy solution.

Clean, efficient, competitively priced coal-derived products, and low-cost environmental compliance and energy systems remain key to our continuing prosperity and our commitment to tackle environmental challenges, including climate change. Technological advances finding their way into future markets could result in advanced co-production and co-processing facilities around the world, based upon Vision 21 technologies developed through universities, government, and industry partnerships.

This Vision 21 concept, in many ways is the culmination of decades of power and fuels research and development. Within the Vision 21 plants, the full energy potential of fossil fuel feedstocks and ''opportunity'' feedstocks such as biomass, petroleum coke, and other materials that might otherwise be considered as wastes, can be tapped by integrating advanced technology ''modules.'' To accomplish the program objective, to advance the science of coal R&D directed at resolving our energy and environmental issues, applications will be accepted in three program areas: (1) The Core Program and (2) the Innovative Concepts Phase-I Program, and (3) the Innovative Concepts Phase-II Program.

UCR Core Program

DOE has allotted $2 million to fund 8 to 10 projects in this program area. The goal of this area is to complement and enhance applied research conducted in related Fossil Energy Programs. Funding is contingent on the length of the project and varies from

$80,000, $140,000, or $200,000 for a project performance period of 12, 13–24, or 25–60 months, respectively for institutions submitting a single application. Additionally, an institution teaming with two other colleges or universities or two colleges/universities teaming with at least one industrial partner is eligible to receive $400,000 in funding for a 36-month project. Joint University/Industry applications must specify a minimum of twenty-five percent (25%) cost sharing of the total proposed project cost. At least one student must receive financial assistance throughout the duration of the grant.

Under the Core Program, research in this area is limited to the following six (6) Core Focus Areas and is listed numerically in descending order of programmatic priority.

1. *Advanced Sensors for Vision 21 Systems*—US DOE is interested in unique approaches in developing advanced sensors and control systems for advanced efficient energy production with zero emission, and related by-product production as envisioned in Vision 21 plans. Future energy production facilities may operate at high temperature environment, real-time temperature measurement (to 3000 °F) of flame, and surfaces (including slags) is needed. Miniaturized temperature sensors that can perform these tasks are a plus. Eliminating fine particulate is critical for gasification and for emission control. Grant applications are sought for proposals to develop particulate sensors capable of measuring concentration, size, and distribution of fine particulate. Particle sizes of interest are from a fraction of a millimeter down to microns. In addition, sensors for measuring trace contaminants in fuels and/or carbon dioxide from advanced gas separation processes would be needed to eliminate any interference with their utilization. Sensors using new mechanisms and with digital output that can be connected into control systems would be preferable. The intended applications are energy production related including advanced combustion facilities, gasifiers, turbines, flue gas cleanup and monitoring, fuel cells, and carbon sequestration, etc.

2. *Materials Development for Advanced Systems Through Nanostructure Science and Technology*—Nanostructured materials are believed to have the potential to revolutionize the way materials are created and used. Any material (metal, ceramic, polymer, glass, composite) created from nanoscale building blocks (clusters or nanoparticles, nanotubes, nanolayers, etc.) that are themselves synthesized from atoms and molecules, can be assembled to form novel structures with unique properties unlike those exhibited by materials composed of microstructures. Thus with the ability to synthesize and control materials in nanometer dimensions, new materials with unprecedented performance properties can be designed [1].

This focus area seeks proposals that will emphasize synthesis, characterization, or engineering development of nanoscale materials that have direct application to advanced power and ultra-clean fuels systems, such as those described in the Vision 21 Program. The DOE–NETL is particularly interested in those projects that seek a new and improved understanding of the relationships between nanostructures and properties and how these can be manipulated to improve efficiencies and performance. For example, nanostructured alloys may hold the potential to be competitors to some oxide dispersion-strengthened ferritic alloys currently being considered for high-temperature heat exchanger tubing, or ultrahigh temperature materials such as the Laves phases intermetallic alloys (*e.g.,* Cr-Cr_2Nb or Cr-Cr_2Ta).

Grant applications are sought for proposals to develop novel, ultrahigh temperature nanostructured alloys and that explores structure/property relationships would be of great interest. Other areas of programmatic interest include using nanostructured materials as advanced environmental barrier coatings, elucidating a better understanding of the fundamental mechanisms in plastic/elastic deformation and fracture of nanostructured materials, synthesizing, characterizing or using nanostructured carbons, or other similar derivatives, as hydrogen storage materials or in gas (H_2, CO_2, CO, CH_4, etc.) separation processes.

References

[1] Siegel, R., Hu, E., Roco, M. ''Nanostructure Science and Technology: A Worldwide Study, WTEC Panel Report on Nanostructure Science and Technology: R&D Status and Trends in Nanoparticles, Nanostructured Materials, and Nanodevices,'' NSF Cooperative Agreement ENG–9707092, International Technology Research Institute at Loyola College, Maryland, August 1999 (also see www.itri.loyola.edu/nano/final/).

3. *Solid-Oxide Fuel Cells*—Solid Oxide Fuel Cells (SOFCs) are a very promising energy conversion technology for utilization of fossil fuels. A new Department of Energy initiative the Solid State Energy Conversion Alliance (SECA) is currently focused on providing the technology to commercialize 400/kW SOFC systems by 2010. It is envisioned that this technology will provide a key component in an integrated coal based Vision 21 power plant. The high temperatures of operation (necessary for adequate ionic conductivity and kinetics) conventionally require layered ceramic materials in a solid state configuration. Research opportunities exist in making high power density SOFCs a commercial reality. Topics being considered for this solicitation are new compatible intermediate temperature material combinations (500–800 °C) for the cell structure, new sulfur and/or oxygen tolerant anode materials, and new cathode materials with good kinetics in the intermediate temperature range. In addition, research addressing the integration of SOFC's into a Vision 21 coal-based power plant is of interest.

Grant applications are sought for proposals to develop intermediate temperature material sets for Solid-Oxide Fuel Cells or addressing SOFC integration issues in Vision 21 coal-based power plants. The intermediate temperature range of interest is 500°C to 800°C although an individual concept does not have to be applicable to the entire range. The concepts and materials proposed must be compatible as part of a fully functional SOFC stack with a lifetime of 40,000 hours. The concepts and materials must be economically compatible with a 2010 SECA cost goal of $100/kW for the fuel cell stack and a $400/kW total system cost. Proposals can address one or all of the research issues, as well as the stated lifetime, compatibility, and economic criteria.

4. *Modeling of Molecule-surface Interactions*—Recent advances in modeling algorithms and computational capabilities have permitted some development of highly detailed computational models of molecule-surface interactions. Such models are of great interest to those developing catalytic materials because the models may suggest more fruitful directions and eliminate unproductive pathways. Further development will permit predictive models that may be able to chemically describe the ideal catalyst for a desired reaction pathway. Grant applications are desired for application and validation of such models to catalytic systems that would produce synthetic fuels or chemicals from coal based synthesis gas.

5. *Liquid Transportation Fuels/ hydrocarbon Reformulation*—Fuel cell power may provide a viable pathway for the transportation industry to deploy high efficiency, ultra-low emissions vehicles. Two sources for the hydrogen fuel include centralized production or

on-board production of hydrogen through reforming of *liquid* hydrocarbon mixtures. The latter route could enable nearer-term utilization of fuel cell power until a hydrogen distribution infrastructure is established. Coal-derived Fischer-Tropsch (F–T) liquids are candidate hydrogen carriers for the vehicle's refoming units because of their favorable hydrogen to carbon ratio and near-zero sulfur content. Other chemicals such as methanol or chemical mixtures other than F–T liquids may also have advantages as hydrogen sources. However, the chemistry involved in reforming these hydrocarbons needs to be better understood, particularly the nature of the by-products.

Grant applications are sought for proposals to investigate the kinetics and thermodynamics of the reforming chemistry associated with converting a selected hydrocarbon (other than methane) or hydrocarbon mixture to hydrogen and byproduct species. A combination of modeling and laboratory research is also needed to provide the basis for more comprehensive evaluations of the merits of utilizing selected hydrogen carriers for fuel cell applications.

6. *Modeling of Refractory Materials in Coal Gasification Systems*—Refractories represent a critical material for the commercial operation of future Vision 21 Systems. Refractories for public utility systems constitute less than 1 percent of all refractories produced, with coal gasification systems comprising only a small part of this total. Much of the research for coal gasification systems was conducted in the 1980s and funded by the U.S. Department of Energy (DOE). Refractory manufacturers have little incentive to develop materials for a coal gasifier market that may exist 10–15 years in the future.

Specific examples of refractory needs in fossil fuel power generation include higher temperature applications in slagging gasifiers, materials able to withstand both oxidizing and reducing environments, high thermal conductivity materials for use in areas where rapid heat transfer is necessary (to increase operating efficiency), and materials with sufficient thermal shock resistance to withstand both scheduled and non-scheduled shut downs. Grant applications are sought for proposals to develop refractory material models which consider the combined effect of chemical or phase changes in the material and thermal cycling on the stress state of the refractory.

UCR Innovative Concepts Phase-I Program

DOE has also allotted $0.25 million to fund up to five, $50,000 12-months Innovative Concepts Phase-I projects. The goal of this area is to solicit unique approaches to address fossil energy-related issues that represent ''out-of-the-box'' thinking and not simply incremental improvements to accelerate solutions to energy and environmental problems. Like the Core Program Area, single and joint applications are invited, however, no additional funding is provided for team applications. Unlike the Core Program, student participation in the IC Phase-I proposed research is strongly encouraged, however, not required.

Innovative research in the coal conversion and utilization areas will be required if coal is to continue to play a dominant role in the generation of electric power. Technical topics like the ones identified below are potential examples of research areas of interest, however, the areas identified were not intended to be all-encompassing. Therefore, it is specifically emphasized that other subjects for coal research would receive the same evaluation and consideration for support as the examples cited in the following Innovative Concepts Phase-I Technical Topics:

Mercury and Other Trace Emissions in Advanced Power Systems—Attractive features of Advanced Power Systems include the ability to accommodate a wide variety of fuel and waste feedstocks and converting the hydrocarbon-based input to simple nonhazardous byproducts. Gasification Systems, in addition, can produce consistent high-quality synthesis gas products that can be used as a building block for chemical manufacturing processes. Laboratory measurements and development of sampling techniques for mercury in reduced gasification conditions, provide first steps to understanding partitioning and removal of mercury and other trace matter in such environments. A recent study indicated that gasification could convert hazardous materials to nonhazardous gases and ashes, and as such justifies a separate treatment relative to incineration in the context of environmental protection and economics.

Grant applications are sought to further understand partioning and removal of mercury and other trace metal and organic substances in Advanced Systems and possible effects due to hot-gas cleanup devices on such trace matter. Objectives of understanding processes involving mercury and other trace matter must intend to ultimately help in minimizing and controlling trace emissions.

Thermodynamic Measurements for Mixtures of Asymmetric Hydrocarbons—Knowledge of the thermodynamics and phase behavior of mixtures of short-chain and long-chain (*i.e.,* those C_{20} and higher) alkanes is central to the understanding and comprehensive modeling of three-phase, Fischer-Tropsch (F–T) reactors. Subsequent process operations and reactor performance is strongly dependent on the composition of the wax phase, whose composition is constrained by the vapor-liquid equilibrium (VLE) that exists in the reactor. Knowledge of such vapor-liquid equilibrium values is also necessary for an understanding of retrograde condensation for examining wax precipitation in natural gas reservoir pipelines and many applications in petroleum processing, such as propane deasphalting.

Thermodynamic models (*i.e.,* equations of state) developed for hydrocarbon mixtures, and used for years, are poor predictors of VLE data when the mixtures contain alkanes longer than C_{20}. Attempts to circumvent this problem by use of equations of state developed for polymer-solvent systems have also been inadequate for modeling these asymmetric mixtures of hydrocarbons. Clearly, there is a need for a generalized thermodynamic model that can be applied to these systems.

Grant applications are desired for measurement of vapor-liquid equilibria for mixtures of light and heavy hydrocarbons, under appropriate conditions of temperature and pressure, so as to provide the basis for a comprehensive equation-of-state that would address such mixtures and their applications to hydrocarbon processing.

Carbon Sequestration—The potential effects of increasing atmospheric CO_2 levels are of major worldwide concern. If left unabated, increasing anthropogenic CO_2 emissions are expected to double atmospheric CO_2 levels by the middle of the century. One alternative for managing CO_2 emissions, which maintains the many benefits of coal-fired power, is carbon sequestration: the capture and secure storage of CO_2 before it is emitted to the atmosphere. However, major challenges must be overcome before suitable carbon sequestration technologies can be developed. These technologies must be environmentally benign, economically viable, safe and effective. They must also provide permanent containment to avoid creating negative

environmental legacies for future generations.

Carbon dioxide sequestration as a carbonate mineral (CO_2 mineral sequestration) is an attractive candidate technology, as it can provide permanent, environmentally benign CO_2 disposal. The carbonates produced (*e.g.,* $MgCO_3$ and $CaCO_3$) already exist in vast quantities in nature and have proven stable over geological time. The major challenge is economically viable process development. Novel methods that address the cost concerns of CO_2 mineral sequestration need to be studied.

Grant applications are sought to investigate key aspects of CO_2 mineral sequestration process development. Methods that have the potential to substantially reduce worldwide CO_2 emissions are of particular interest. Considerations of interest to reduce overall process cost include, but are not limited to, (i) improving process efficiency, *e.g.,* reaction rates and conditions, (ii) use of inexpensive feedstock materials, and (iii) the generation of marketable process products. Emphasis should be placed on approaches that are technically, economically, and environmentally feasible.

UCR Innovative Concepts Phase-II Program

The Innovative Concepts Phase-II Program is the principal R&D effort under the IC Program. DOE has budgeted $600,000 to fund three, three-year $200,000 projects. The goal of the IC Phase-II Program is to solicit additional research in areas previously included in the Phase-I Program. Phase-II awards are expected to be made during fiscal year 2001 to institutions with approaches that offer sufficient promising from Phase-I efforts. Consequently, only winners of a one-year Phase I grant awarded in FY99 will be considered eligible for a phase II grant. It is anticipated that at least 2–3 institutions submitting an application with approaches that appear sufficiently promising from the Phase-I efforts could receive a Phase-II award in 2001. Similar to the Core Program, student participation is required throughout the duration of the grant.

Issued in Morgantown, WV on November 30, 2000.

Randolph L. Kesling,

Director, Acquisition and Assistance Division.

[FR Doc. 00–31597 Filed 12–11–00; 8:45 am]

BILLING CODE 6450–01–P

DEPARTMENT OF ENERGY

National Energy Technology Laboratory

Notice of Availability of a Financial Assistance Solicitation

AGENCY: U.S. Department of Energy (DOE), National Energy Technology Laboratory (NETL).

ACTION: Notice Inviting Financial Assistance Applications.

SUMMARY: The Department of Energy announces that it intends to conduct a competitive Program Solicitation, DE-PS26–01NT41092, and award financial assistance (Cooperative Agreements) for the program entitled ''Energy Efficient Building Equipment and Envelop Technologies, Round III.'' Through this solicitation, the DOE/NETL seeks applications on behalf of the Office of Building Technology, State and Community Programs in DOE's Office of Energy Efficiency and Renewable Energy (EERE) for innovative technologies that have the potential for significant energy savings in residential and commercial buildings. DOE is seeking to support projects that are advancing energy efficient equipment, envelope and whole building technologies. Specifically, the objective of the solicitation is to accelerate high-payoff technologies that, because of their risk, are unlikely to be developed in a timely manner without a partnership between industry and the Federal government.

DATES: The Program Solicitation will be available on the NETL Web site on or about December 15, 2000. Prospective offerors who would like to be notified as soon as the solicitation is available should register at *http://www.netl.doe.gov/business/index.html.* Provide your e-mail address and click on the heading ''Energy Efficiency and Renewable Energy.'' Once you subscribe, you will receive an announcement by e-mail that the solicitation has been released to the public.

ADDRESSES: The Program Solicitation, along with all amendments, will be available on the DOE/NETL's Internet address at *http://www.netl.doe.gov/business/solicit.* Applicants are therefore encouraged to periodically check this NETL address to ascertain the status of these documents. Applications must be prepared and submitted in accordance with the instructions and forms contained in the Program Solicitation.

FOR FURTHER INFORMATION CONTACT: John R. Columbia, MS: 921–107, U.S. Department of Energy, National Energy Technology Laboratory, 626 Cochrans Mill Road, P.O. Box 10940, Pittsburgh, PA 15236–0940, E-mail Address: columbia@netl.doe.gov, Telephone Number: (412) 386–6144.

SUPPLEMENTARY INFORMATION: DOE/NETL intends to select a group of projects programmatically balanced with respect to : (1) Technology category (equipment end uses, envelopes and whole buildings); (2) building type (residential and/or commercial); and (3) time of commercialization (short-term or long-term market potential of the technology). The solicitation will cover research and development on materials, components and systems applicable to both residential and commercial buildings. The solicitation will not support demonstration projects to deploy the technology on a large scale but will support proof of concept projects. The research and development areas of interest are as follows: Building Equipment—energy conversion and control equipment supplying lighting, space conditioning (heating, cooling, dehumidification and ventilation), water heating, refrigeration, and appliance services to building occupants and commercial operations; Building Envelope—materials, components and systems for windows, walls, roofs, foundations and other elements which comprise building exteriors and provide thermal integrity and daylighting; and Whole Building Technologies—the integration of components and systems which govern overall energy use and indoor environmental quality in a building.

The solicitation covers research in four technology maturation stages. Technology Maturation Stage 2 involves applied research; Technology Maturation Stage 3 involves exploratory development (non-specific applications and bench-scale testing); Technology Maturation Stage 4 involves advanced development (specific applications and bench-scale testing); and Maturation Stage 5 involves engineering development (pilot-scale and/or field testing). For projects spanning more than one maturation stage, continuation decision points will be inserted at the completion of each stage. Multiple awards are expected regardless of the technology maturation stage(s) proposed.

It is DOE's desire to encourage the widest participation, including the involvement of small business concerns and small disadvantaged business concerns. In order to gain the necessary expertise to review applications, non-Federal personnel may be used as evaluators or advisors in the evaluation